

# Mainshaft, Countershaft

## Inspection

### Mainshaft:

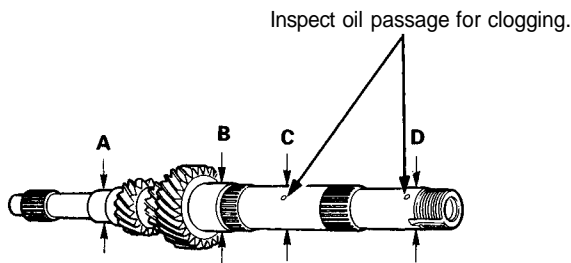
1. Inspect the mainshaft surface for wear and damage, then measure the mainshaft at points A, B, C and D.

**Standard:**

- A (Needle bearing surface):**  
27.977 — 27.990 mm  
(1.1015 — 1.1020 in)
- B (Needle bearing surface):**  
37.989 — 38.000 mm  
(1.4956 — 1.4961 in)
- C (Needle bearing surface):**  
30.987 — 31.000 mm  
(1.2200 — 1.2205 in)
- D (Ball bearing surface):**  
27.987 — 28.000 mm  
(1.1018 — 1.1024 in)

**Service Limit:**

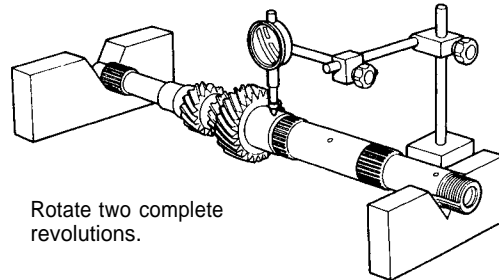
- A:** 27.930 mm (1.0996 in)
- B:** 37.935 mm (1.4935 in)
- C:** 30.940 mm (1.2181 in)
- D:** 27.937 mm (1.0999 in)



If any part of the mainshaft is less than the service limit, replace it with a new one.

2. Inspect for runout.

**Standard:** 0.02 mm (0.001 in) max.  
**Service Limit:** 0.05 mm (0.002 in)



If the runout exceeds the service limit, replace the mainshaft with a new one.



### Countershaft:

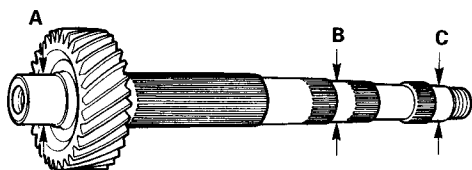
1. Inspect the countershaft surface for wear and damage, then measure the countershaft at points A, B and C.

**Standard:**

- A (Needle bearing surface):**  
33.000 — 33.015 mm  
(1.2992 — 1.2998 in)
- B (Ball bearing surface):**  
31.975 — 31.988 mm  
(1.2589 — 1.2594 in)
- C (Needle bearing surface):**  
27.987 — 28.000 mm  
(1.1018 — 1.1024 in)

**Service Limit:**

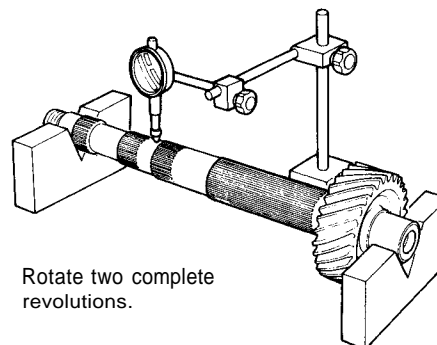
- A: 32.950 mm (1.2972 in)**
- B: 31.928 mm (1.2570 in)**
- C: 27.937 mm (1.0999 in)**



If any part of the countershaft is less than the service limit, replace it with a new one.

2. Inspect for runout.

**Standard:** 0.02 mm (0.001 in) max.  
**Service Limit:** 0.05 mm (0.002 in)



If the runout exceeds the service limit, replace the countershaft with a new one.